

**REMARKS**

Claims 1, 2, 4, 5, 7-10, 12-16 and 18-29 are pending in this application. By this Amendment, claims 1, 2, 4, 5, 7-10, 12-16, 18, 20 and 22-27 are amended, claims 3, 6, 11 and 17 are canceled, and new claims 28 and 29 are added. Claims 4, 5, 10 and 14 are amended to address a claim rejection under 35 U.S.C. 112. Claims 7, 8, 14-16, 18, 20 and 22-24 are amended to maintain consistency with amended claim 1.

No new matter is added to the application by this Amendment. The features added to claims 1, 2, 4, 5 and 25 and new claim 28 find support within the present application, as originally filed, at, for examples, Figs. 1, 2a and 2b and page 6, line 21 – page 7, line 5. Features added to claim 8 finds support in Figs. 3a-3f, as originally filed. Support for features added to claims 9 and 10 can be found within the present application, as filed, at, for example, Fig. 6 and page 8, lines 16-20. The new features added to claim 27 find support in claim 17, as originally filed. New claim 29 finds support in claim 14, as originally filed.

Reconsideration of the application is respectfully requested.

**I. Rejection Under 35 U.S.C. 112**

Claims 3-6, 10, 11, 14 and 17 was rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. This rejection is respectfully traversed.

In view of the cancellation of claims 3, 6, 11 and 17, this rejection is moot with respect to those claims.

Applicants submit that amended claims 4, 5, 10 and 14 overcome the rejection under 35 U.S.C. 112, second paragraph.

Thus, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. 112, second paragraph.

**II. Rejection Under 35 U.S.C. §102**

Claims 1-6, 9-14, 16-20, 25 and 27 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,534,328 to Ashmead et al. (hereinafter "Ashmead"). The rejection is respectfully traversed.

Prior to discussing the relative merits of the Patent Office's rejection, Applicants point out that unpatentability based on "anticipation" type rejection under 35 USC 102(b) requires that the invention is not in fact new. See *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 302, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995) ("lack of novelty (often called 'anticipation') requires that the same invention, including each element and limitation of the claims, was known or used by others before it was invented by the patentee"). Anticipation requires that a *single reference* [emphasis added] describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art. See, *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

The Patent Office alleges that Ashmead teaches each and every feature recited in claims 1-6, 9-14, 16-20, 25 and 27. Specifically, the Patent Office alleges that Ashmead teaches stacked microplates with an inlet portion 20/24 and outlet ports 30/34 which are capable to receive two fluid phase for fluid processing, where there is a stack at least one slotted plate 1100 (fig 16) having plural slot openings 90-1' through 90-8', and an aperture plate 1000 having plural offset parallel aperture slots 90C1'/90C2'

arranged above the slotted plate 1100 whose slots are continuous openings along each length of 90-1' through 90-8'. Applicants respectfully disagree with the allegations of the Patent Office.

Nowhere does Ashmead teach or suggest at least one slotted plate having at least one first slot opening and at least one second slot opening completely penetrating the at least one slotted plate and an aperture plate having at least one aperture slot arranged above the at least one first slot opening and the at least one second slot opening of the at least one slotted plate wherein the at least one first slot opening of the at least one slotted plate overlaps the first feed channel and the at least one second slot opening of the at least one slotted plate overlaps the second feed channel as recited in amended claim 1.

Additionally, Ashmead does not teach or suggest the steps of leading the first fluid phase from a first feed channel through at least one first slot opening of at least one slotted plate and into at least one aperture slot in an aperture plate and leading the second fluid phase from a second feed channel through at least one second slot opening of the at least one slotted plate and into the at least one aperture slot in the aperture plate, wherein the at least one first and the at least one second slot openings completely penetrate the at least one slotted plate, wherein the at least one slotted plate is located between the aperture plate and the first and second feed channels as required by amended claim 25.

The alleged slot openings 90-1' through 90-8' of the alleged slotted plate 1100 do not completely penetrate the alleged slotted plate 1100. Instead, the alleged slot openings 90-1' through 90-8' are merely grooves in the alleged slotted plated 1100

having a depth smaller than the thickness of the alleged slotted plate 1100.

Additionally, the alleged aperture plate 1000 of Ashmead is located between the alleged slotted plate 1100 and the alleged inlet portion 20/24 and/or the alleged outlet ports 30/34 of Ashmead as shown in Figs. 1-4 of Ashmead. Thus, the alleged slotted plate 1100 of Ashmead does not overlap the alleged inlet portion 20/24 and/or the alleged outlet ports 30/34 of Ashmead. Moreover, the alleged slotted plate 1100 of Ashmead is not located between the alleged aperture plate 1000 and the alleged inlet portion 20/24 and/or the alleged outlet ports 30/34 of Ashmead.

Because the above-identified features of independent claims 1 and 25 are neither taught nor suggested by Ashmead, Ashmead cannot anticipate, and would not have rendered obvious, the features specifically defined in claims 1 and 25 and their dependent claims.

For at least these reasons, claims 1, 2, 4, 5, 9, 10, 12-14, 16, 18-20, 25 and 27 are patentably distinct from and/or non-obvious in view of Ashmead. Reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §102(b) are respectfully requested.

### **III. Rejections Under 35 U.S.C. 103**

#### **A. Ashmead**

Claims 15 and 26 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ashmead. This rejection is respectfully traversed.

The Patent Office acknowledges that Ashmead is silent as to the slot width less than 500 micrometers or in particular the slot width being less than 10 micrometers (see

page 6 of the present Office Action). The Patent Office alleges that the modification to Ashmead to achieve the present invention of claims 15 and 26 would have involved a mere change in the size of a component and that such change in size is generally recognized as being within the level of ordinary skill in the art. Applicants respectfully disagree with the allegations of the Patent Office.

As discussed above with respect to claim 1, Ashmead does not teach or suggest at least one slotted plate having at least one first slot opening and at least one second slot opening completely penetrating the at least one slotted plate and an aperture plate having at least one aperture slot arranged above the at least one first slot opening and the at least one second slot opening of the at least one slotted plate wherein the at least one first slot opening of the at least one slotted plate overlaps the first feed channel and the at least one second slot opening of the at least one slotted plate overlaps the second feed channel as recited in amended claim 1, from which claims 15 and 26 depend.

Because the above-identified features of independent claim 1 are neither taught nor suggested by Ashmead, Ashmead would not have rendered obvious, the features specifically defined in claim 1 and its dependent claims.

For all the foregoing reasons, Applicants respectfully submit that Ashmead would not have led one of ordinary skill in the art to required features of claims 15 and 26. Reconsideration and withdrawal of this rejection are respectfully requested.

**B. Ashmead in view of Lowe et al.**

Claims 7, 8 and 21-24 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Ashmead in view of U.S. Patent Publication No. 2004/0027915 to Lowe et al. (hereinafter “Lowe”). This rejection is respectfully traversed.

The Patent Office acknowledges that Ashmead does not show (a) the slots being in an oblique relationship to one another, (b) the slots having a shape of a funnel or lobe, and/or (c) having a housing to contain the channels (see page 7 of the present Office Action). The Patent Office introduces Lowe as allegedly remedying these deficiencies of Ashmead. Applicants respectfully disagree with the allegations of the Patent Office.

Ashmead and Lowe, taken singly or in combination, fail to teach or suggest that at least one aperture slot of the aperture plate forms a continuous opening between the at least one first and the at least one second slot openings of the at least one slotted plate as recited in amended claim 1, from which claims 7, 8 and 21-24 depend.

In contrast, the channel system (i.e., fluid channels 2, 3 in FIG. 1b) in the mixing plate 20 of Lowe is a relatively complex geometry and is not a continuous channel between the supply lines 23, 24 of the base plate 22 of Lowe (see Fig. 1a)

Because the above-identified features of independent claim 1 are neither taught nor suggested by Ashmead and Lowe, taken singly or in combination, these references would not have rendered obvious, the features specifically defined in claim 1 and its dependent claims.

For all the foregoing reasons, Applicants respectfully submit that Ashmead and Lowe would not have led one of ordinary skill in the art to required features of claims 7,

8 and 21-24. Reconsideration and withdrawal of this rejection are respectfully requested.

**IV. New Claims**

Applicants take this opportunity to submit that the cited references fail to teach or suggest the features specifically defined in new claims 28 and 29.

Accordingly, Applications submit that new claims 28 and 29 are patentably distinct and nonobvious in view of the cited references.

**V. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, 4, 5, 7-10, 12-16, and 18-29 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

**CONDITIONAL PETITION FOR EXTENSION OF TIME**

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

**ADDITIONAL FEE**

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,  
NORRIS MC LAUGHLIN & MARCUS, P.A.

By /Brian C. Anscomb/  
Brian C. Anscomb  
Reg. No. 48,641  
875 Third Avenue, 18<sup>th</sup> Floor  
New York, New York 10022  
Phone: (212) 808-0700  
Fax: (212) 808-0844